

ABSTRACT

A transmitter with a pulse width modulation amplifier includes an inner positive feedback loop, which has a self oscillating modulator and a switching stage and is connected to an LP filter. Outer feedback loops from the LP filter, respective from an output transformer are coupled to a compensation block connected to the inner loop. An input telecommunications signal, fed via the compensation block, is superimposed on a carrier from the modulator into a pulse width modulated signal, which is amplified, filtered and fed to the transformer. The input signal is compared with feedback signals. Phase shift caused by the LP filter is partly compensated by the inner loop.

A switching frequency in the modulator therefore can be comparatively low. An output impedance is kept on a predetermined level, enabling connection of a receiver. Advantages are low power dissipation, high packing density, high frequency bands and use in bidirectional communication.

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